

Possible Stats Projects

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Possible projects

- Calculate a confidence interval of a proportion from a sample
 - What is the probability a coin spun on table lands heads?
- Calculate a confidence interval of a mean from a sample
 - What is the average of a weighted die?
 - What is the average number of kernels in a popcorn bag?
- Determine whether a correlation exists between variables (linear regression on two continuous variables)
 - Do taller people have taller favorite animals?
- Run a controlled randomized experiment (check if difference of means or proportions is significant)
 - [https://en.wikipedia.org/wiki/Anchoring_\(cognitive_bias\)](https://en.wikipedia.org/wiki/Anchoring_(cognitive_bias))
 - Are you significantly better at throwing darts with your right hand than your left? (This would need discussion of your inability to properly blind the participant.)
 - Do egg shells increase the growth rate of potato plants?
 - Does singing to plants increase their growth rate?
 - https://en.wikipedia.org/wiki/Stroop_effect
- Exemplify the central limit theorem
 - Simulate and describe a Galton board
- Design a random-number generator, and investigate its fairness
 - Do a chi-squared test on a weighted die.